

In the claims:

Following is a complete set of claims as amended with this Response.

1. (Currently Amended) A method comprising:

transmitting a broadcast burst in a broadcast channel from a base station of a radio communications system;

receiving a request burst at the base station from a user terminal;

transmitting a message burst outside the broadcast channel from the base station to the user terminal from which the request burst was received, the message burst being sent in response to the request burst from the user terminal and directed to the user terminal, the message burst including a description of all of the channels of the radio communications system available for communicating between the base station and any user terminals that are registered with the base station; and
registering the user terminal with the base station using the description included in the message burst.

2. (Original) The method of Claim 1, wherein the description of the available channels includes an identification of traffic channels of the radio communications system.

3. (Original) The method of Claim 1, wherein the description of the available channels includes an identification of random access channels of the radio communications system.

4. (Original) The method of Claim 1, wherein the message burst further includes an indication of the transmit power level to be used by the user terminal in further transmissions.
5. (Original) The method of Claim 4, wherein the request burst further includes an indication of the power used by the user terminal to transmit the request burst and wherein the indication of the transmit power to be used by the user terminal is based upon the indication in the request.
6. (Original) The method of Claim 1, wherein the request includes an identification of the user terminal.
7. (Original) The method of Claim 1, wherein the configuration message further includes an indication of the timing adjustment to be used by the user terminal in further transmissions.
8. (Original) The method of Claim 1, wherein the broadcast burst has a specific transmission time and the request burst is received with a specific timing relationship to the broadcast message, the method further comprising using the timing relationship to determine a base station to which the request burst is directed.
9. (Original) The method of Claim 1, wherein the message burst is sent with a specific timing relationship to the request burst, the method further comprising using the timing relationship to direct the message burst to the user terminal from which the request burst was received.

10. (Original) The method of Claim 1, wherein the broadcast burst further includes a code to identify the transmitting base station and wherein receiving a request burst comprises demultiplexing the request burst from the base station identifying code.
11. (Original) The method of Claim 10, wherein the code to identify the transmitting base station comprises a base station color code.
12. (Original) The method of Claim 1, wherein the broadcast burst includes a power sequence that is related to the power used to transmit the broadcast burst.
13. (Original) The method of Claim 1, wherein the broadcast burst includes a load sequence that is related to the current traffic load at the base station.
14. (Original) The method of Claim 1, further comprising analyzing the spatial direction from which the request burst is received and wherein transmitting the message burst comprises transmitting the message burst spatially directed toward the user terminal based on the spatial direction analysis.
15. (Original) The method of Claim 14, wherein analyzing the spatial direction comprises determining direction of arrival parameters from the received message burst.

16. (Currently Amended) A machine-readable medium having stored thereon data representing sequences of instructions which, when executed by a machine, cause the machine to perform operations comprising:

receiving a request burst at the base station from a user terminal;

transmitting a message burst outside the broadcast channel from the base station to the user terminal from which the request burst was received, the message burst being sent in response to the request burst from the user terminal and directed to the user terminal, the message burst including a description of ~~all of~~ the channels of the radio communications system available for communicating between the base station and any user terminals that are registered with the base station; and

registering the user terminal with the base station using the description included in the message burst.

17. (Original) The medium of Claim 16, wherein the description of the available channels includes an identification of traffic channels of the radio communications system.

18. (Original) The medium of Claim 16, wherein the description of the available channels includes an identification of random access channels of the radio communications system.

19. (Original) The medium of Claim 16, wherein the message burst further includes an indication of the transmit power level to be used by the user terminal in further transmissions.

20. (Original) The medium of Claim 19, wherein the request burst further includes an indication of the power used by the user terminal to transmit the request burst and wherein the indication of the transmit power to be used by the user terminal is based upon the indication in the request.

21. (Original) The medium of Claim 16, wherein the broadcast burst has a specific transmission time and the request burst is received with a specific timing relationship to the broadcast message, the instructions further causing the machine to perform operations comprising using the timing relationship to determine a base station to which the request burst is directed.

22. (Original) The medium of Claim 16, wherein the message burst is sent with a specific timing relationship to the request burst, the instructions further causing the machine to perform operations comprising using the timing relationship to direct the message burst to the user terminal from which the request burst was received.

23. (Original) The medium of Claim 16, wherein the broadcast burst includes a load sequence that is related to the current traffic load at the base station.

24. (Original) The medium of Claim 16, the instructions further causing the machine to perform operations comprising analyzing the spatial direction from which the request burst is received and wherein the instructions for transmitting the message burst further comprise instructions causing the machine to perform operations comprising transmitting the message burst spatially directed toward the user terminal based on the spatial direction analysis.

25. (Currently Amended) An apparatus comprising:

a transmitter of a base station of a radio communications system to transmit a broadcast burst in a broadcast channel;

a receiver of the base station to receive a request burst from a user terminal;

a processor of the base station to assemble a message burst for transmission to the user terminal from which the request burst was received in response to the request burst, the message burst being sent by the transmitter outside of the broadcast channel and directed to the user terminal, the message burst including a description of ~~all of~~ the channels of the radio communications system available for communicating between the base station and ~~any~~ user terminals that are registered with the base station, and to register the user terminal with the base station after transmitting the message burst.

26. (Original) The apparatus of Claim 25, wherein the description of the available channels includes an identification of traffic channels of the radio communications system.

27. (Original) The apparatus of Claim 25, wherein the description of the available channels includes an identification of random access channels of the radio communications system.

28. (Previously Presented) The apparatus of Claim 25, wherein the request burst further includes an indication of the power used by the user terminal to transmit the request burst and wherein the message burst includes an indication of the transmit power to be used by the user terminal based upon the indication in the request.

29. (Original) The apparatus of Claim 25, wherein the broadcast burst has a specific transmission time and the request burst is received with a specific timing relationship to the broadcast message, and wherein the processor uses the timing relationship to determine a base station to which the request burst is directed.

30. (Original) The apparatus of Claim 25, wherein the message burst is sent with a specific timing relationship to the request burst, to direct the message burst to the user terminal from which the request burst was received.

31. (Original) The apparatus of Claim 25, wherein the broadcast burst includes a load sequence that is related to the current traffic load at the base station.

32. (Original) The apparatus of Claim 25, further comprising a spatial processor to analyze the spatial direction from which the request burst is received and to transmit the message burst spatially directed toward the user terminal based on the spatial direction analysis.

33. (Currently Amended) An apparatus comprising:

means for transmitting a broadcast burst in a broadcast channel from a base station of a radio communications system;

means for receiving a request burst at the base station from a user terminal;

means for transmitting a message burst outside of the broadcast channel from the base station to the user terminal from which the request burst was received, the message burst being sent in response to the request burst from the user terminal and directed to the user terminal, the message burst including a description of all of the channels of the radio communications system available for communicating between the base station and any user terminals that are registered with the base station; and

means for registering the user terminal with the base station using the description included in the message burst.

34. (Original) The apparatus of Claim 33, wherein the description of the available channels includes an identification of traffic channels of the radio communications system.

35. (Original) The apparatus of Claim 33, wherein the description of the available channels includes an identification of random access channels of the radio communications system.

36. (Original) The apparatus of Claim 33, wherein the message burst further includes an indication of the transmit power level to be used by the user terminal in further transmissions.

37. (Original) The apparatus of Claim 33, wherein the message burst further includes an indication of the timing adjustment to be used by the user terminal in further transmissions.

38. (Original) The apparatus of Claim 33, wherein the broadcast burst has a specific transmission time and the request burst is received with a specific timing relationship to the broadcast message, the apparatus further comprising means for using the timing relationship to determine a base station to which the request burst is directed.

39. (Original) The apparatus of Claim 33, wherein the message burst is sent with a specific timing relationship to the request burst, the apparatus further comprising means for using the timing relationship to direct the message burst to the user terminal from which the request burst was received.

40. (Original) The apparatus of Claim 33, wherein the broadcast burst includes a load sequence that is related to the current traffic load at the base station.

41. (Currently Amended) A method for requesting access on a wireless network comprising:

- receiving a plurality of timing sequences on a broadcast channel from at least one base station;
- determining network timing using the received timing sequences;
- using the network timing to determine a network access request transmission time;
- transmitting a network access request at the determined time; and
- receiving a directed message burst from a base station outside the broadcast channel in response to the access request, the message burst including a description of ~~all of~~ the channels of the wireless network available for communicating between the base station and user terminals that are registered with the base station; and
- sending a registration request to the base station using the description contained in the message burst.

42. (Previously Presented) The method of Claim 41, wherein the description of the available channels includes an identification of traffic channels of the radio communications system.

43. (Previously Presented) The method of Claim 41, wherein the description of the available channels includes an identification of random access channels of the radio communications system.

44. (Previously Presented) The method of Claim 41, wherein the message burst further includes an indication of the transmit power level to be used by the user terminal in further transmissions.

45. (Previously Presented) The method of Claim 41, wherein the message burst further includes an indication of the timing adjustment to be used by the user terminal in further transmissions.

46. (Previously Presented) The method of Claim 41, wherein the timing sequences include a power sequence that is related to the power used to transmit the timing sequence.

47. (Previously Presented) The method of Claim 46, wherein transmitting a request further comprises transmitting a request with a power selected based on the received power sequence.

48. (Previously Presented) The method of Claim 41, wherein the timing sequences include a load sequence that is related to the current traffic load at the base station.

49. (Previously Presented) The method of Claim 41, wherein the timing sequences are received from a plurality of different base stations and wherein the method further comprises distinguishing different base stations using the time at which different timing sequences are received.

50. (Previously Presented) The method of Claim 41, wherein transmitting a request comprises transmitting a request to a selected one of the plurality of different base stations by transmitting the request at a time having a specific relationship to the time at which a timing sequence is received from the selected base station.

51. (Previously Presented) The method of Claim 41, wherein the timing sequences are received with at least one frequency and wherein the method further comprises using the received timing sequences to determine a request transmission frequency based on the frequency of the received timing sequences.

52. (Previously Presented) The method of Claim 41, further comprising receiving a base station identifier on the broadcast channel and using the base station identifier to distinguish broadcasts from different base stations on the same broadcast channel.

53. (Previously Presented) The method of Claim 41, wherein receiving a timing sequence further comprises receiving an identification of the base station and wherein transmitting a request further comprises transmitting the base station identification.

54. (Previously Presented) The method of Claim 53, wherein the code to identify the transmitting base station comprises a base station color code.

55. (Previously Presented) The method of Claim 54, wherein transmitting a request comprises multiplexing the request with the base station identifying code.

56. (Previously Presented) The method of Claim 41, wherein transmitting a request further comprises transmitting an identifier of the transmitter.

57. (Currently Amended) A machine-readable medium having stored thereon data representing sequences of instructions which, when executed by a machine, cause the machine to perform operations comprising:

receiving a plurality of timing sequences on a broadcast channel of a wireless network from at least one base station;

determining network timing using the received timing sequences;

using the network timing to determine a network access request transmission time;

receiving a directed message burst from a base station outside the broadcast channel in response to the access request, the message burst including a description of all of the channels of the wireless network available for communicating between the base station and user terminals that are registered with the base station; and

sending a registration request to the base station using the description contained in the message burst.

58. (Original) The medium of Claim 57, wherein the description of the available channels includes an identification of traffic channels of the radio communications system.

59. (Original) The medium of Claim 57, wherein the description of the available channels includes an identification of random access channels of the radio communications system.

60. (Original) The medium of Claim 57, wherein the message burst further includes an indication of the transmit power level to be used by the user terminal in further transmissions.

61. (Previously Presented) The medium of Claim 57, the instructions for transmitting a request comprise further instructions causing the machine to perform operations comprising transmitting a request with a power selected based on the received power sequence.

62. (Original) The medium of Claim 57, wherein the instructions for transmitting a request comprise further instructions causing the machine to perform operations comprising transmitting a request to a selected one of the plurality of different base stations by transmitting the request at a time having a specific relationship to the time at which a timing sequence is received from the selected base station.

63. (Original) The medium of Claim 57, wherein the instructions for transmitting a request comprise further instructions causing the machine to perform operations comprising multiplexing the request with a base station identifying code.

64. (Currently Amended) An apparatus for requesting access on a wireless network comprising:

means for receiving a plurality of timing sequences on a broadcast channel from at least one base station;

means for determining network timing using the received timing sequences;

means for using the network timing to determine a network access request transmission time;

means for transmitting a network access request at the determined time; and

means for receiving a directed message burst from a base station outside the broadcast channel in response to the access request, the message burst including a description of ~~all~~ of the channels of the wireless network available for communicating between the base station and user terminals that are registered with the base station; and sending a registration request to the base station using the description contained in the message burst.

65. (Original) The apparatus of Claim 64, wherein the description of the available channels includes an identification of traffic channels of the radio communications system.

66. (Original) The apparatus of Claim 64, wherein the description of the available channels includes an identification of random access channels of the radio communications system.

67. (Original) The apparatus of Claim 64, wherein the message burst further includes an indication of the transmit power level to be used by the user terminal in further transmissions.

68. (Original) The apparatus of Claim 64, wherein the means for transmitting a request comprises means for transmitting a request to a selected one of the plurality of different base stations by transmitting the request at a time having a specific relationship to the time at which a timing sequence is received from the selected base station.